

- L. annotinum L., var. pungens Derv., — local.
 L. stichense Rupr., — local, in the upper St. John river districts.
 L. sabinaefolium Willd., — local.
 L. tristachyum Pursh.

*"At the zone of transition from the sterile to the fertile regions (in *Lycopodium Selago*) imperfectly developed, aborted, spore cases are often found, and this with other evidence has suggested that, in the evolution of the sporophyte the purely vegetative regions have resulted from a sterilisation of fertile tissue." The possession of sterile leaves, foliage leaves, for the manufacture of food, and the restriction of leaves bearing spore cases, sporophylls, to the apices of the branches is of advantage to the plant; and, furthermore, a knowledge of the development of these conditions directs us away from the old theory enunciated by Wolff in 1770, and again stated by Goethe in 1790, that the sporophylls, floral leaves, are derived from foliage leaves; and points us in the very opposite direction, to a theory that holds that foliage leaves have been derived from sporophylls, through a process of sterilization.

SUGGESTED PROGRAM OF STUDIES OUTLINES.

Secondary Section.

At the Collegiate Institute, Principal J. A. Snell, of the Normal School, Saskatoon, recently outlined a suggested program of studies, which follows:

FIRST YEAR.

1. English — Literature and Oral Reading, Composition, Spelling.

In composition the teacher of English will be responsible for teaching the principles involved: while, throughout the fall high school course, an essay every two weeks will be required. These brief essays are to be related to the subjects of study for the year and to be read by the teacher of the subject concerned. The essays, re-written, if necessary, are to be retained in loose-leaf binding for the year.

The spelling will be related to the various subjects of study, and each teacher will be responsible for the spelling in connection with his own subjects.

2. Mathematics — Unified (or correlated) course to be outlined, e. g.:

Arithmetic and Mensuration, with simple gener-

alisations of arithmetic. Such knowledge of Algebraic principles as will enable the student to solve simple questions of one and two unknowns. (The aim is to give the students the power to apply the equation to the solution of problems.)

3. General Science — Geography: An outline of such definite work in commercial geography as may be considered necessary. Such physical geography as shows a close connection with principles or physics.

Elementary General Science — All with special reference to agriculture and household science.

- 4, 5. Options — Any two of language, art, music, manual training, household science, commercial.

SECOND YEAR.

1. English — Literature and Oral Reading, Composition (essay work only), Grammar (review of the essentials of the sentence.)
2. Mathematics — Unified, course to be outlined.
3. General Science, with special reference to agriculture.
4. History — Canadian and British.
5. Options — Any two of languages, art, music, manual training, household science, commercial; (one-half time to each option.)

THIRD YEAR.

1. English — Literature, Essays.
2. Mathematics — Unified, course to be prescribed.
3. History — General History, the Canadian Constitution.
- 4, 5. Options — Any two of languages, physics, chemistry, biology, music, agriculture, household science, manual training, commercial.

FOURTH YEAR.

Five units to be selected from the following groups — not more than two to be chosen from any one group.

A unit is one hour per day or five hours per week in a subject.

1. English — (a) ; Literature, (b) ; Literature, second course.
2. Mathematics — (a) Algebra, Geometry, Trigonometry as far as first year university; (b) advanced work to be determined — solid Geometry and Elementary Analytic Geometry.
3. Science — Physics, Chemistry, Biology.
4. History.
5. Languages — Latin, Greek, French, German.